

ABSTRACT OF DISCLOSURE

The present invention relates to a novel gene for *S*-adenosyl-L-methionine:jasmonic acid carboxyl methyltransferase, a novel jasmonic acid carboxyl methyltransferase protein synthesized therefrom, and a novel transgenic plant transformed with an expression vector containing said gene. It has been known that said enzyme synthesizes jasmonic acid methyl ester using jasmonic acid and *S*-adenosyl methionine as the substrate and jasmonic acid methyl ester is a compound mediating the defensive reactions upon invasion of phytopathogenic organisms and harmful insects as well as a compound for regulating the plant growth. By introducing said novel enzyme which is specifically expressed in flowers into the plant body, a transgenic plant which exhibits a resistance against phytopathogens, harmful insects and stresses without causing any adverse effect on the plant growth can be obtained.